

Addressing climate change, environmental destruction and contemporary slavery



Executive summary

Right now, climate change is negatively affecting many of the most vulnerable people in the poorest countries in the world. A combination of sudden-onset disasters and slow-onset events are having a destabilising effect on urban and, in particular, rural communities. In many parts of the world the effects of climate change are exacerbated by economic activities that cause environmental degradation. Together these factors worsen pre-existing socio-economic vulnerabilities, deepen exclusion and marginalisation, drive displacement and migration, and heighten the risk of contemporary slavery for children and adults.

Covid-19's devastating impact is also deepening economic and social inequalities, driving millions of people into situations of vulnerability and exploitation, including human trafficking, forced labour and debt bondage. These crises need to be tackled together to make sure that people who are made vulnerable to contemporary forms of slavery have the social protections and working conditions they need to lead their lives in dignity.

"There is a very strong relationship: environment, mining and trafficking."

Specialist anti-trafficking prosecutor, Amazon region Peru

Negative outcomes are not inevitable, however. Indeed, in the absence of sustained and comprehensive national and global action, many vulnerable communities are already proactively responding to these challenges. States and the scientific community have begun to pay increased attention to the potential of traditional, ancestral and indigenous knowledge and techniques as grassroots responses to the climate crisis. Isolated examples also exist of states adopting legal frameworks that promote resilience and adaptation.

What is needed is that those communities and countries most affected by climate change and environmental damage are provided with a suite of supports and options that protect fundamental human rights and enable them to build resilience to survive this crisis with dignity. The voices of those affected by this multi-faceted emergency – among them land and environmental rights defenders, those at risk of exploitation, and survivors of trafficking and slavery – must be heeded rather than dismissed.

In the words of indigenous leader Nemonte Nenquimo:

"We are fighting to protect what we love – our way of life, our rivers, the animals, our forests, life on Earth – and it's time that you listened to us."²

Taking this path will involve radical change in mainstream approaches to these issues. For too long, states, corporations and multilateral bodies have treated climate change as a disembodied external threat, rather than as the consequence of a global economic system predicated on endless growth and the exploitation of nature and labour. In turn, the global response has prioritised a mix of externally imposed technocratic fixes and market-based mechanisms that are insufficient to resolve these issues and often incompatible with a human rights approach. Instead, what is needed is a fundamental shift in the allocation of power and resources, failing which we risk a scenario of deepening inequality, exclusion and vulnerability that former UN Special Rapporteur on Extreme Forms of Poverty, Philip Alston, has likened to a 'climate apartheid'.³

If the stated aims of international commitments such as the UN Sustainable Development Goals, the Paris Agreement, the Global Compact for Safe, Orderly and Regular Migration, and the many other international human rights agreements are to be achieved, this fundamental shift is urgently required. States have made commitments to reduce emissions, fund climate adaptation, support migrants, prevent abuse and exploitation, involve affected and at-risk groups, and penalise those that profit from the abuse of the planet and its inhabitants – human and animal. The time has come for them to make good on those promises.

Right now, many people in the poorest and most climate vulnerable countries remain locked into a global economic system that commodifies nature and human beings, incentivising environmental destruction and exploitation. Right now, many governments and multilateral institutions are encouraging and even subsidising activities that actually increase emissions through pollution, land use change and deforestation. Right now, labour and environmental standards are under attack by global businesses that put profit before people and planet, while governments ignore abuses. Right now, many of those who resist are threatened, criminalised and murdered. Right now, we have an opportunity to design a global recovery that has human rights and climate justice at its heart.

This paper presents the findings of research into the relationship between climate change, environmental destruction and contemporary slavery to provide policy recommendations for national and international action. The research highlights the importance of a rights-based approach to tackling these intertwined and complex issues.

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What we are seeing

Climate change and environmental destruction are driving vulnerability to contemporary slavery

- The impacts of climate change are destabilising communities and driving internal and cross-border migration.
- The world's poorest people are especially vulnerable to climate variability and environmental degradation due to their reliance on forests and natural resources.
- Without adequate tools and supports for the vulnerable, those pushed into migration are at risk of being exploited and abused.
- In many parts of the world, development models based on resource extraction and export-oriented agribusiness are worsening vulnerability to exploitation by monopolising land and resources, polluting the soil, air and water, destroying ecosystems, and driving displacement.
- Climate, environmental and human rights issues are often siloed within the state apparatus, hampering efforts to address them.
- Confusion over key concepts of contemporary slavery and an over-emphasis
 on criminal justice approaches can pull attention and resources away from the
 positive obligations of states to prevent foreseeable harms and protect victims,
 and of businesses to eradicate abuse from their supply chains.
- Many of the most affected communities and those from the most vulnerable sectors, including survivors of trafficking and slavery, are not meaningfully included in conversations about future policies or initiatives.

What we want to see

An integrated social, economic and environmental response to build resilience

- Adopt an integrated rights-based approach to tackling the climate, biodiversity and environmental crises.
- Act urgently to reduce emissions in wealthier countries via a just transition away from fossil fuels in favour of renewable alternatives that are environmentally sustainable and respect human rights.
- Prioritise and properly resource climate adaptation interventions and actions to build resilience in the most affected countries and amongst the most vulnerable populations, in line with international commitments.
- Enable and support safe migration both internally and across borders.
- Enforce existing laws on slavery, forced labour, human trafficking and debt bondage.
- Adopt a victim-centred approach to tackling contemporary slavery and take seriously states' positive obligations to prevent harm.
- Vigorously regulate business sectors associated with environmental destruction and slavery at the national level.
- Introduce mandatory human rights and environmental due diligence laws with strong liability provisions at national and regional levels, and a legally binding international treaty to cover global trade and supply chains.
- Address the root causes of the overlapping vulnerabilities to climate change and exploitation through anti-discrimination policies, comprehensive social protections and provision of key services such as health and, in particular, education.
- Adopt participatory and inclusive decision-making processes at all levels to ensure the meaningful participation of workers, affected groups and vulnerable communities.

Overview: a vicious circle

Climate change, environmental destruction and contemporary slavery

Climate change is destabilising livelihoods, increasing vulnerability and driving migration. At the same time the Covid-19 pandemic is also deepening economic and social inequalities, driving millions of people into situations of vulnerability and exploitation.

According to a 2018 World Bank report, more than 140 million people may be displaced by the impacts of climate change alone by 2050 if sufficient climate action is not taken.⁴ Prior research has also established a clear link between risky migration and various forms of exploitation, including trafficking, debt bondage and forced labour.⁵ This research confirms these phenomena are closely interconnected. We found evidence that the negative impacts of climate change are a significant factor behind migration, even when migrants face the prospect of being exploited.

"They [workers]
know that there are a
lot of problems from
mining, especially for
the lake water... but
they cannot say it
openly, they cannot
make a complaint
because they say,
'we are also
working there'."

Environmental and Indigenous Rights NGO, Bolivia



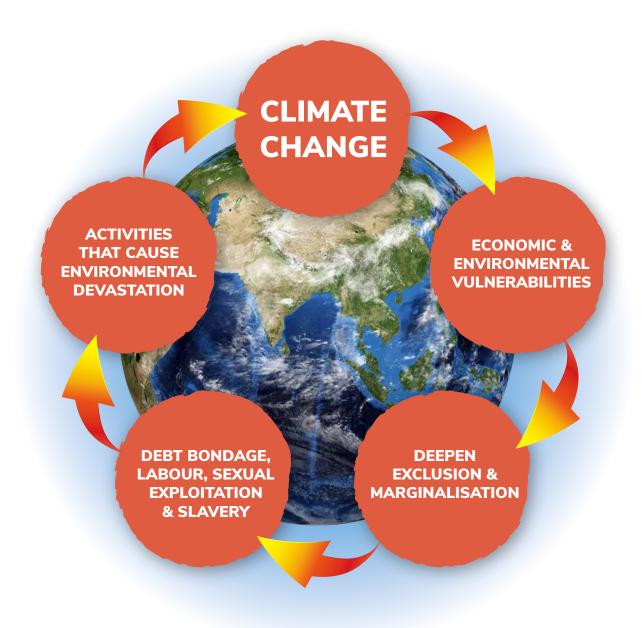
Research participants outlined a scenario of rising social, economic and environmental pressures. The impacts of climate change – such as the loss of crops to flooding, the death of livestock due to sudden freezes, a scarcity of water for irrigation and consumption – were highlighted over and over again. These shocks frequently constitute the 'final straw' for those in already precarious conditions, forcing them to supplement their income by abandoning their land or moving away from their families.

Nevertheless, we also found evidence that other environmental concerns are influencing the decision to migrate. Chief among these is the impact of extractive or agribusiness sectors that occupy land, cut down forests, and pollute the air, water and soil, making agriculture and even life untenable. For example, recent research found that industrialised agriculture was responsible for 'staggering' rates of global deforestation, particularly crops like soya, palm oil and sugar cane.⁶ Furthermore, both agribusiness and large-scale mining require significant amounts of increasingly scarce water resources, which are often secured with state backing at the expense of small farming, human and animal consumption.

The combination of these dynamics not only pushes people into migration, but violates many of their fundamental human rights. For example, the International Convention on the Rights of the Child – the most widely ratified human rights treaty in history – provides for a child's right to education, recreation and adequate standard of living. The terms of the International Covenant on Economic, Social and Cultural Rights establishes rights to work, health and an adequate standard of living, while the UN has recognised a human right to water. Most, if not all, of these rights are breached or threatened by the impacts of climate change and environmental destruction.

Furthermore, those forced to migrate in these circumstances do so in conditions of vulnerability, exposing them to the risk of exploitation and abuse. Many end up employed, directly or indirectly, in those same destructive sectors. In this way, their labour contributes to climate change and environmental damage, thereby closing the vicious circle. These findings reflect an emerging realisation that environmental degradation and deforestation are not only a consequence but also a cause of vulnerability that can lead to exploitation and abuse.⁷

This analysis indicates that the relationship between climate change, environmental destruction and contemporary slavery is multi-dimensional. We present this relationship as circular: the impacts of climate change worsen existing economic and environmental vulnerabilities, and deepen exclusion and marginalisation, leading some to fall into conditions of debt bondage, labour and sexual exploitation, and conditions analogous to slavery. Many of these workers, in turn, are employed – directly and indirectly – in activities that cause environmental devastation, resulting in higher emissions that further fuel climate change.⁸



This vicious circle is not inevitable. Migration is increasingly viewed as an important adaptation or coping process in response to climate change. It can be a way for those who are heavily affected to diversify income and build resilience. Nor are all forms of migration inherently risky, particularly if migrants have access to suitable information and support. Additionally, it is important to note that for vulnerability to end in exploitation and abuse requires the existence of someone prepared to exploit them. These are not disembodied actions. Nevertheless, the vicious circle we outline is systematic and interconnected, which means that it cannot be broken by any one single action, such as through arrest and prosecution alone.

Instead, the quality of outcomes for affected communities depend to a significant degree on political choices at local, national, regional and international levels. During the course of this research, we encountered examples of innovative policy and programmatic alternatives at community and occasionally national levels that go beyond the 'typical' methods used to combat either contemporary slavery or climate change (see page 18 'Grassroots Approaches to Reducing Vulnerability'). Nevertheless, these alternatives were limited in scope and scale, pointing to the need for both 'bold and creative thinking and a coordinated approach'. ¹⁰



Context: the human consequences of climate change

The 2018 Special Report by the UN Intergovernmental Panel on Climate Change (IPCC) was a wake-up call for the planet, setting out a 12-year time period within which to limit the rise of global average temperature to 1.5° C.¹¹ However, the report also notes that many parts of the world are already feeling the effects of climate change. There is clear evidence that the poorest countries, in particular, are increasingly affected by both sudden-onset disasters like floods, storms, fires and landslides; and slow-onset events, including water shortages, soil depletion, variations in rainfall, extremes of temperature, and loss of biodiversity and food security.

The effects of the climate crisis on the human populations of the poorest and most affected countries are significant, but also varied. While early predictions of massive international mobility have been refined, climate change remains the number one cause of displacement globally. In Bangladesh alone, for example, the World Bank estimates that over 13 million people may be displaced by climate change by 2050; while there is evidence that climate change is also fuelling increases in northward migration from Central America. In the countries of the poorest and most affected countries are significant, but also varied. While early predictions of massive international mobility have been refined, climate change remains the number one cause of displacement globally. In Bangladesh alone, for example, the World Bank estimates that over 13 million people may be displaced by climate change by 2050; while there is evidence that climate change is also fuelling increases in northward migration from Central America.

As stated previously, migration in all its forms can, under the right conditions, represent an important method of climate adaptation and reduce economic precariousness and vulnerability. Indeed, evidence from different parts of the world indicates that many affected communities are formulating their own responses to these threats in the absence of responses from states or markets. These methods include traditional and agroecological food systems that are productive, sustainable and equitable, and offer a means for communities to overcome the worst effects of this 'triple emergency'. Recent evidence points to the role of indigenous peoples as 'change agents', highlighting the contribution of ancestral knowledge to preserving and restoring biodiversity. Women's agency is increasingly recognised as crucial to climate adaptation and societal resilience. In the anti-slavery field, there is a growing recognition that involving survivors at all stages of interventions produces better outcomes.

Nevertheless, the complex, intersectional nature of the challenges require comprehensive and coordinated responses that extend beyond the capacity of affected communities acting alone. In the absence of effective state and non-state interventions and support, the effects of climate change worsen existing vulnerabilities, thereby increasing the risk of exploitation.

These vulnerabilities take different forms, and include individual-level factors such as gender, age, migrant status and ethnicity; and structural factors such as economic marginalisation, inequitable land distribution, increased precariousness, conflict and direct human impacts on the environment. Rather than reflecting inherent vulnerabilities, these so-called individual-level risk factors are themselves the products of historical and contemporary structures and processes that are often used to justify the exclusion and exploitation of certain groups within societies.

In combination, these factors bring about 'constellations of risk'²⁰ that increase the probability of exploitation. Evidence increasingly indicates that what matters most in terms of vulnerability is not absolute poverty, but rather relative poverty and associated power imbalances. Put another way, we agree with the conceptualisation of vulnerability to slavery as 'a form of extreme inequality, sustained by a range of vested interests'.²¹

This is particularly true for poor people in rural areas. According to a recent report, up to 90% of the world's poorest people depend on the availability of natural resources, while 75% of the poorest households rely directly on subsistence farming or fishing for survival.²² Indigenous peoples are particularly dependent on natural resources and so are acutely vulnerable to climate variability.²³ Due to the combined impact of climate change and environmental destruction, these communities are increasingly forced to seek alternative sources of subsistence.

For many, this means migrating in precarious conditions, risking forms of exploitation that include debt bondage, domestic servitude, forced labour and human trafficking. For example, recent research from Cambodia characterises the impacts of climate change and contemporary slavery within the construction industry as 'converging traumas'. This link between climate change, precarity, debt and exploitation was also acknowledged in the 2019 Report of the UN Special Rapporteur on Contemporary Forms of Slavery, which calls for anti-slavery efforts to be 'better integrated into broader efforts to achieve sustainable development'.

State responses to climate induced vulnerabilities

This points to the important role of the state in strengthening adaptation measures, supporting safer migration, facilitating integration, preventing exploitation and supporting victims. Nevertheless, states' ability to step up to this challenge depends on a range of factors. At national level, in particular, we note two challenges.

The first is capacity. Many poorer countries suffer from weak technical capacity, limited state presence and a shortage of funds. Thus, even when strong laws and rights provisions exist on paper – as is often the case – in reality, states lack the tools to adequately implement them. This dynamic is particularly acute in the 'informal sector', which in many countries covers the majority of jobs and much of the economic activity, yet in relation to which states play a very limited role.

"We have a labour inspection system that is extremely weak, that has no authority, that even when they impose fines, it rarely collects them."

Former Labour Ministry official, Peru

The second challenge is political will, particularly in states that depend heavily on the rents earned from the exploitation of natural resources, land and labour for revenue. Under pressure to provide an 'investor-friendly' environment from powerful global and national actors, and often locked in by the terms of investment treaties or trade agreements that close off policy and finance pathways,²⁶ poorer states are incentivised to relax environmental regulation, marginalise unions and ignore labour and migrant rights abuses. Unchecked, this continuum of labour exploitation can result in grave human rights violations, including forced labour, debt bondage and slavery.²⁷

In combination, these factors can lead to political and economic distortion and socioenvironmental conflict. Most disturbingly, they result in threats to the health and lives of people and groups that seek to defend land, the environment and human rights – those who are 'the first line of defence against the causes and impacts of climate breakdown'.²⁸



Global obstacles to effective action against climate-driven vulnerability

An insufficiently articulated and holistic approach to contemporary slavery

Efforts to combat contemporary slavery tend to be specialised and limited to circumscribed areas of state activity – particularly the criminal justice system. A focus on criminal justice approaches can detract attention and resources from addressing root causes of vulnerability to exploitation. Contemporary slavery is a multi-dimensional social issue, and in focusing on only one of those dimensions, states will fail at adequately preventing harm and protecting victims. An unduly limited approach to tackling contemporary slavery can result in institutional, legislative and implementation gaps that fall far short of states' positive obligations under international human rights law to actively prevent the exploitation of vulnerable populations.²⁹

An incomplete understanding of the relationship between climate change, environmental destruction and contemporary slavery

Understanding of this complex relationship is still evolving. Recent research has conceived of the relationship as a 'two-way nexus'³⁰ between environmental destruction and vulnerability to slavery. This view points to extractive industries and agroindustry as the main source of demand for cheap labour, and links those industries to downward pressures within global supply chains that incentivise labour exploitation and forced labour. This concept also recognises these sectors' contribution to climate change: extractive industries are responsible for half of the world's carbon emissions and more than 80% of biodiversity loss.³¹

Yet this relationship is even more complex. First, both climate change and environmental destruction linked to extractivism are driving vulnerability and displacement, creating a steady supply of exploitable labour. The connection between enforced landlessness and slavery is well established, to the extent that countries like Brazil and Bolivia have explicitly cited land redistribution as a viable method for preventing exploitation. Secondly, more attention must be given to the racialised and gendered impacts of climate change and environmental destruction, such as the links between extractive industries and trafficking for sexual exploitation; and the persistence of forced labour involving peoples of lower castes as well as indigenous adults and children.³² Thirdly, while a transition to renewables is essential, research indicates that replacing fossil fuels with alternatives based on metal mining or industrialised agriculture – sectors associated with pollution, heavy water usage, deforestation, forced displacement and extrajudicial killings – threaten to replicate harmful patterns and worsen conditions for vulnerable frontline communities.³³

Eradicating contemporary slavery will not be possible without effectively tackling these deep-rooted and complex problems.



The failure to treat climate change as a human rights issue

Until recently, the mainstream global response to climate change was characterised by a technocratic approach that sought to incentivise reductions in greenhouse gas emissions through moderate voluntary targets, supplemented by the use of technical fixes and market-based mechanisms. The IPCC Special Report has upended this gradualist approach, stating boldly that the scale of the transformation required has 'no documented historic precedent'. The report goes on to highlight the human impacts of global warming, which, according to former UN Special Rapporteur Philip Alston, are 'likely to challenge or undermine the enjoyment of almost every human right in the international bill of rights'.³⁴ This points to an urgent need to adopt a human rights-based approach to tackling climate change.

Such a shift would have far-reaching implications not only for states, but also for international climate action, transnational business and the development sector. To begin with, this approach raises wider issues of environmental justice. Research indicates that over 90% of historical excess global CO2 emissions is attributable to the countries of the Global North.³⁵ Principles of climate justice that insist on the burden of climate change being allocated in an equitable manner must be read in conjunction with environmental law principles of 'the polluter pays' and Common but Differentiated Responsibility. As a matter of both law and justice, the world's richest countries and companies need to take primary responsibility for addressing climate change and environmental degradation. Research indicates that market-based mechanisms may not comply with human rights approaches and can end up placing the burden back on poorer countries.³⁶

This approach highlights that powerful state and non-state actors have significant and long-standing obligations under international human rights law. These include universal rights to education, health, work and living standards; and specific duties toward vulnerable groups, including women, children, migrants and indigenous peoples. With reference to contemporary slavery, states have a positive duty to act to prevent these grave human rights violations, adequately support and protect victims and provide suitable remediation. Similarly, under the terms of the UN Guiding Principles on Business and Human Rights, states have a duty to protect against human rights abuses by businesses, including those operating in and those domiciled in their jurisdictions, across their entire supply chains; and businesses have a corporate responsibility to respect human rights by preventing, mitigating and, in some cases, remediating adverse human rights impacts linked to their operation or relationships, including by carrying out human rights due diligence.

The research project: Peru and Bolivia

The findings and recommendations are based on research conducted in Peru and Bolivia in 2018 and 2019. These cases were selected due to a shared vulnerability to the effects of climate change and patterns of exploitation, but also due to differences in their institutional frameworks, influences and political models.

While Peru and Bolivia are classified as middle-income countries, they are both highly vulnerable to the effects of climate change. Peru was ranked third in the world in climate hazard risks by the UK Tyndall Centre in 2004 and described by the United Nations Development Programme (UNDP) as 'severely affected by climate change' in 2013.³⁷ Meanwhile, Bolivia is considered the most vulnerable country in South America by the Notre Dame Global Adaptation Initiative (ND-Gain) Index. Both countries are at particular risk of water scarcity, due to a combination of glacier melt and high temperatures. For example, 80% of Peruvians depend on glacier water for consumption and irrigation.





The project involved a mix of both desk and field research. Desk research included a review of academic and policy-oriented literatures, as well as reviews of relevant state and civil society reports, laws, national plans and official texts. Field research was carried out in two periods and included semi-structured interviews with key participants from the state and civil society, including: officials in relevant ministries, prosecutors, police officers, labour inspectors, representatives of religious orders, NGOs, and grassroots peasant, indigenous, labour and domestic workers' movements. These were supplemented by interviews with academic and sector experts in both countries.

The project used a comparative approach to assess state responses to contemporary slavery in the context of climate change in Bolivia and Peru. Analysis of legal, institutional and discursive responses revealed significant variations. These differences, in part, reflect contrasting government ideologies and visions of the role of the state. Peru relies heavily on an individualised criminal justice approach focused predominantly on illicit activities, with little in the way of action to prevent harm and vulnerability. The Bolivian state was more willing to intervene to address broader vulnerabilities, such as by facilitating land titles for indigenous peoples and providing cash transfers.

One example is the case of debt peonage among indigenous Guaraní in the Chaco region. Considered 'the most dramatic' case of forced labour in the Andean region,³⁸ the plight of these 'captive communities' was highlighted by the Inter-American Commission on Human Rights.³⁹ In response, the state ramped up land reform and facilitated indigenous self-government, leading to the near-elimination of these practices.⁴⁰ Although state interventions became more uneven and politicised over time, this case demonstrates the potential for more holistic approaches to tackling contemporary slavery.

The project also found significant similarities between the two states. Neither country had put in place comprehensive supports for communities impacted by climate change in order to reduce vulnerability and, while some efforts have been made to involve communities, this was not done in a systematic or transparent manner. Furthermore, both states failed to properly facilitate safe passage or integration for climate migrants, resulting in some being exploited. Most significantly, both states prioritised development models based on driving growth and capturing rents from environmentally damaging activities such as fossil fuel extraction, mining and industrialised agriculture. State support for these activities took both direct and indirect forms, including: subsidies, tax breaks and the creation of special labour regimes; but also forbearance by disregarding allegations of exploitation in certain industries.⁴¹

These variations highlight the existence of alternative approaches addressing vulnerabilities and open up new ways of thinking about the prevention of exploitation. On the other hand, the similarities between two very different states focus attention on a global economic order that pits poorer countries against each other in a race to provide commodities to wealthier regions as cheaply as possible. The losers of this race are those pushed into conditions of exploitation and contemporary slavery, only to further fuel it through their labour.

1. Increased precariousness

Climate change is rendering rural livelihoods more precarious. Issues such as extremes of temperature, unpredictable rain patterns, loss of biodiversity, and insufficient access to clean water interact with existing economic marginalisation to threaten the viability of small-scale agriculture and fishing. Without suitable policies to support rural communities, this situation leads to the loss of food security, damages physical and emotional wellbeing, heightens economic precarity and drives migration.

2. Risky migration

Climate-fuelled mobility feeds into existing migration patterns, some of which are more inherently risky than others. Nevertheless, without proper support and facilitated integration measures at both source and destination, many migrants run the risk of exploitation and abuse.

3. Unsustainable development

The destabilising impacts of climate change are aggravated by economic development models based on natural resource extraction and industrialised agriculture. These models have led to deforestation from land use change, pollution from mining, oil and agrochemicals, and inequitable access to land and water. Mining, cash-cropping and hydrocarbons are also associated with labour and sexual exploitation. This research finds that the environmental impacts of these activities also help to create a pool of available cheap labour. Air and water pollution, soil depletion, desertification, deforestation and water scarcity linked to these activities are causing or contributing to the precarity and displacement of indigenous and peasant communities. This situation reflects a global economic system that privileges unfettered growth over sustainability, wellbeing and human rights.

4. Siloed issues

Despite the central role of the state in addressing these issues, the apparatus of many states is unsuited for this purpose. Issues such as climate change, environmental management, human rights, exploitation, migration and economic activity are 'siloed' activities overseen by distinct ministries with very different, even contradictory, aims and methods. This disconnect is compounded by weak processes of communication and coordination between and within ministries, low state presence outside major cities, and insufficient technical capacity.

5. Conceptual confusion

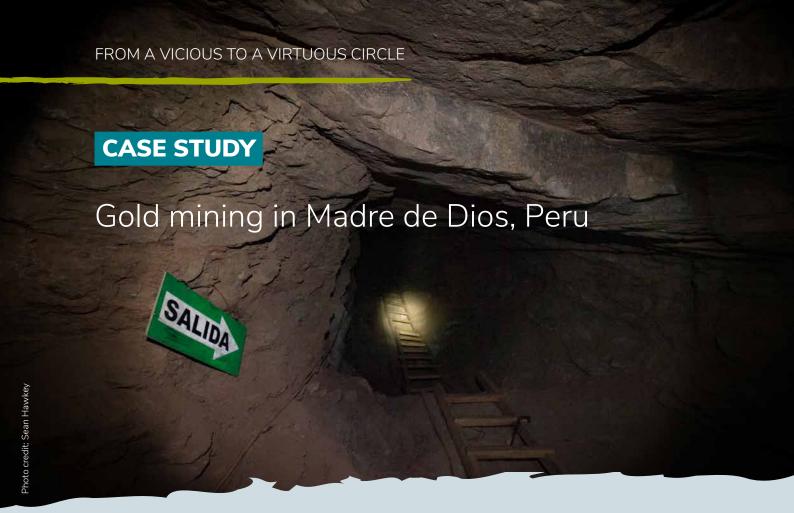
Efforts to combat contemporary slavery are hampered by widespread confusion regarding the nature of and relations between concepts such as human trafficking, forced labour, sexual and labour exploitation. In particular, we found an overwhelming focus on the sexual exploitation of women and girls, while labour exploitation is widely tolerated as 'natural' or 'cultural'.

This bias tends to be replicated by state institutions, police, labour inspectors and the judiciary. As a result, structural factors such as lack of social safety nets, obstacles to labour organising, pressures exerted by corporations via global supply chains, and weak state regulation and enforcement are largely overlooked in favour of an individualised criminal justice approach.

Grassroots approaches to reducing vulnerability

In both Peru and Bolivia, research participants described the use of a range of alternative approaches to reducing the vulnerabilities identified in this paper. One example is the employment of ancestral or traditional methods of agricultural production as forms of climate adaptation in order to mitigate vulnerabilities in rural communities. The variety of methods used is extensive, including: climate forecasting using bio-indicators, traditional irrigation systems, crop rotation, and the planting and exchange of a range of different varieties of seeds.⁴² In a similar fashion, we found examples of community-driven efforts to prevent human trafficking and related exploitation, in particular through the empowerment and training of local women leaders, such as a 'community defenders' project in Bolivia.

The context of the climate crisis and deepening levels of inequality have prompted international interest in these methods. This has led to the channelling of limited development assistance and scientific research funding into pilot projects to explore the potential of these approaches. At a national level, municipal and central governments have taken some steps to explore and even implement these methods. For example, the Environment Ministry in Peru is investigating the 'sowing and harvesting of water' as a means of reducing vulnerability to water scarcity. While in Bolivia, the government has worked with social movements to implement agroecological farming methods. Nevertheless, in neither case could these approaches be considered mainstream, and they are dwarfed in terms of scale, support and access to resources by agroindustry and mining.



Alluvial gold mining in Peru's Amazon is an activity that encapsulates many of the issues highlighted in the findings and illustrates the limitations of existing approaches. Informal and illegal gold mining is rampant in Latin America and is heavily associated with trafficking for both sexual and labour exploitation, forced labour and debt bondage. This activity causes huge environmental damage through the liberal use of mercury and deforestation that contributes to greenhouse gas emissions.

Much of the mining activity in the Madre de Dios region of Peru is classified as 'illegal' as it occurs within a nature reserve that is home to indigenous peoples and huge biodiversity. The region has been described as 'a poster child of global deforestation',⁴³ with over 100,000 hectares of primary rainforest destroyed since 2009. That year is significant, as it was the point at which gold prices on world markets began to grow exponentially, highlighting the role of globalisation in driving deforestation. It is estimated that over 20% of Peru's gold is produced illegally but, nonetheless, enters global supply chains via 'clearing-houses' in Europe, the US and the Middle East.⁴⁴

However, global demand does not entirely account for the disaster of Madre de Dios. National-level factors are also significant, including: relaxed environmental regulation and oversight (often following lobbying from the formal mining sector); a failure to adequately fund and empower labour inspectors; an uncoordinated approach to tackling forced labour and human trafficking; and political corruption. Particularly relevant was the construction of the Interoceanic Highway – part of a broader infrastructure strategy to facilitate exports – which was considered to have been the catalyst, as construction was followed by a 400% increase in mining-related deforestation within the space of a few years.

Somewhat unusually, the presence of human trafficking for both labour and sexual exploitation⁴⁵ and forced labour/debt bondage⁴⁶ have been extensively documented in Madre de Dios. A report from the International Labour Organization (ILO) found significant numbers of workers laboured close to 70 hours a week, seven days a week, in subhuman

conditions. Similar work by CHS Alternativo detailed the trafficking of women and girls to so-called 'prosti-bars' adjacent to mining camps. After years of sporadic and ineffective state interventions, the Peruvian government finally responded in early 2019.

'Operation Mercury' was launched in February of that year with two stated objectives: mitigating environmental damage and rescuing victims of human trafficking. The operation was formally led by the Environment Ministry, and was accompanied by the appointment of a special prosecutor for environmental crimes. The operation was heavily militarised, with a plan to establish a permanent base in the region. It is also notable that the operation led to zero arrests for trafficking or forced labour and did not rescue a single victim.

It is as yet unclear how the state will resolve the tension between its goals to remediate the environment while formalising further mining. Additionally, while rates of deforestation have fallen in the vicinity of previous mining, new 'hotspots' of deforestation have appeared in various other locations – an example of the so-called 'balloon effect'. With gold prices reaching record levels due to Covid-19, it is hard to see how this will be controlled, particularly given the economic crisis caused by the coronavirus. Instead, influential political and business actors are calling for further easing of environmental and labour regulations to incentivise inward investment.

But perhaps the most serious flaw is the failure to reduce vulnerability and prevent exploitation at source. In the case of Madre de Dios, the majority of those trafficked or exploited hail from the Cusco region. Despite the harrowing work conditions, restricted freedom and severe exploitation and abuse, an ILO survey found that 47% of workers would return to work in Madre de Dios.⁴⁷ This seeming contradiction speaks directly to the marginalisation and vulnerability highlighted in this paper. The Cusco region has extremely high rates of poverty and food insecurity, and research participants noted a lack of adequate support for small farming.

Furthermore, along with negative climate change impacts – including freezing temperatures and drought – these communities also suffer the consequences of environmental damage from decades of formal mining. Most notable is the poisoning of water sources by heavy metals – including mercury – that damage human health and makes agriculture unviable.⁴⁸ Another issue is the heavy use of scarce water resources by mining companies, meaning there is often an insufficient supply for farming and human consumption.

Testimony from research participants supported these findings. For example, environmental policy expert Professor Augusto Castro of the Catholic University of Peru noted the existence of 'huge conflicts' between rural communities and mining companies over water in Peru. Even during periods of drought, mining companies continued to use large amounts of water and were polluting community reservoirs, he noted. The combined effect of these dynamics is displacement and vulnerability.

In the words of a leader of a Cusco farmers' association: 'Each year the population is lower and it appears that peasant communities will be entirely depopulated... people are obliged to migrate to other regions, above all to Madre de Dios, where they work in the mines'.

A community anti-trafficking activist agreed, noting that small farmers are abandoning their land to move to informal settlements on the outskirts of Cusco. Receiving little support from the state, she noted that they are 'easily deceived' by false work offers and entrapped by debt due to their precarious circumstances. This is the vicious circle from which many struggle to escape.

Towards a virtuous circle

Rather than the vicious circle of climate change, vulnerability, exploitation and environmental destruction outlined, it is possible to envision a very different reality.

Our recommendations are interconnected and interdependent: no one intervention of itself – however welcome – has the potential to tackle the problems previously outlined. Instead, it is the need for action on all fronts, for comprehensive and integrated responses, that we wish to emphasise above all. This approach is in line with the spirit of the Agenda 2030, which treats the individual Sustainable Development Goals and targets as part of an 'indivisible whole' and provides direction for sustainable global post-Covid-19 recovery.

The following principles are not presented as an exhaustive list of solutions, but merely as indicative principles that, when combined, offer the possibility of moving toward a 'virtuous circle' such as that laid out in the diagram below.



1. Empowering communities

By ensuring collective and individual rights to land and a clean environment through titling, distribution and recognising indigenous autonomies over territories and the subsoil; including affected communities and groups in decision-making processes, valuing their traditional knowledge and techniques; providing comprehensive social protections and services; facilitating safe migration, including access to credit and rights-based information; facilitating remittance flows; and providing specialised programmes of protection, assistance, remediation and rehabilitation to victims of trafficking and contemporary slavery.

2. Regulating public and private entities and listening to workers

Through comprehensive reporting and transparency; effective inspection and regulation at multiple tiers of the supply chain; mandatory human rights and environmental due diligence laws with strong liability provisions in global supply chains at national and regional levels; investigating suspected violations and enforcing sanctions; respecting the freedom to associate and the right to collective bargaining via labour unions; and listening to workers' voices, including embracing worker-driven systems of monitoring and enforcement.

3. Protecting the environment

Through the meaningful inclusion and participation of affected communities and groups in target-setting and decision-making; transparency and due diligence in supply chains; resourcing and staffing environmental protection agencies, arming them with appropriate powers, including remediation and prosecution; and linking climate and environmental outcomes to economic activities such as trade and investment.

4. Differentiated climate action

Respect the principle of common but differentiated responsibility for climate change by combining drastic emission-reduction measures in richer, high-emitting countries with significant and sustained financial remediation packages to poorer countries that are already suffering loss and damage due to climate change, in order to support comprehensive adaptation and build resilience in at-risk communities.

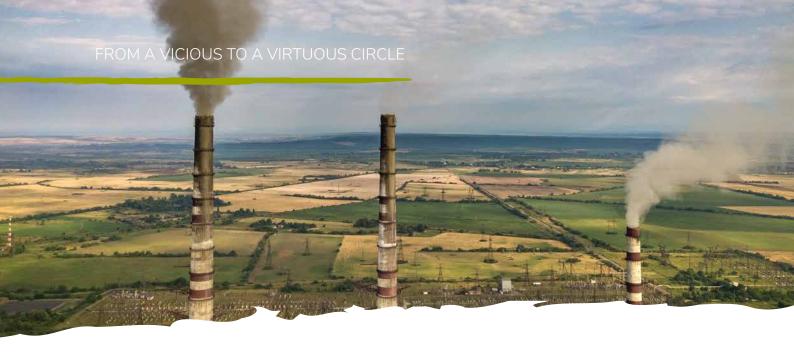


Detailed recommendations

1. For governments in poorer and climate-vulnerable countries

- Vigorously regulate economic sectors associated with environmental destruction and human rights abuses, including contemporary slavery. Measures must include the establishment and enforcement of suitable environmental standards, the meaningful participation of local communities, including the enforcement of indigenous rights such as that recognised by ILO Convention 169; the regulation of global supply chains through mandatory human rights and environmental due diligence with strong liability provisions; the protection of land, environmental and human rights defenders, and robust investigation and prosecution of assaults or threats against them.
- Enhance social protections and support in particular for agrarian communities.
 States need to provide rural communities with access to basic services such as healthcare, education, sanitation and housing that would increase their ability to stay where they are, if they so wish. Furthermore, measures such as providing fair credit, establishing land rights, facilitating market access and protecting agrobiodiversity can reduce vulnerability and make migration safer.

- Take the state's positive obligations to prevent human rights violations seriously.
 While states must continue to investigate and prosecute criminal forms of exploitation, action to avoid or prevent the conditions that increase vulnerability to exploitation can not only be more effective in the long-term, but also more efficient given states' finite resources.
- Prioritise climate adaptation and resilience interventions. While no state should
 disregard their shared responsibility to reduce emissions, many poorer countries
 are being forced to choose between environmental and socio-economic priorities.
 This is a false dichotomy, as the short-term gains derived from such activities do
 not and will not compensate for the loss of ecosystems and related livelihoods in
 the medium/long-term.
- Enforce existing laws focused on slavery, human trafficking, debt bondage and
 forced labour of children and adults in a more holistic, rights-based manner,
 including: vindicating labour rights and conducting robust labour inspection
 systems; ensuring adequate funding and training; including victims of trafficking
 and slavery, labour unions and civil society organisations; and providing
 comprehensive protections and support for victims.
- Create effective spaces for the meaningful inclusion of workers, marginalised sectors and communities through participatory decision-making processes.
- Facilitate safe migration, both internally and internationally, including measures
 to integrate migrants into their new communities via mechanisms such as
 information campaigns, formal training prior to migration, supporting access to
 remedy at non-state levels and providing access to adequate basic services at
 both source and destination.
- Implement all international and regional human rights treaties into domestic law.
 In particular, ratify the Protocol of 2014 to the ILO's Forced Labour Convention 1930, and the UN Convention on Protection of the Rights of All Migrant Workers and Members of their Families, and implement their provisions. Conduct human rights impact assessments of all climate-related polices.



2. For governments in richer countries

- Urgently ramp up mitigation measures to reduce greenhouse gas emissions and achieve net zero emissions by 2050. Based on the 'Polluter Pays' principle, these countries are typically the largest net emitters, and a commitment to climate justice demands that they act urgently to mitigate the harm already done.
 Action should extend to removing barriers to policy and finance innovation, such as investor-state dispute settlement mechanisms contained in many investment treaties and trade agreements.
- Properly regulate the 'outsourcing' of greenhouse gas emissions to poorer countries. It is not enough for wealthier countries or corporations to reduce emissions by moving high-emitting activities elsewhere. Climate change is a global threat that requires a coordinated global response to reduce overall emissions, wherever they occur.
- Ensure a just recovery from the effects of Covid-19 and deliver a just transition to renewable energy and industry that guarantees workers' rights globally and avoids reproducing vulnerability and rights violations.
- Introduce mandatory human rights and environmental due diligence legislation
 for global supply chains to effectively regulate the impacts of corporations in
 their countries. It is vitally important that any such legislation has strong liability
 and enforcement regimes and improved access to remedy, and adopts a zerotolerance approach to attacks on land, environmental and human rights defenders.
- Act decisively to fill the 'funding gap' related to climate adaptation for more vulnerable countries.
- In the case of cross border migration, governments should ensure that migrant
 workers are afforded the same social protections as local workers, including safe
 and fair working conditions.
- Implement all international and regional human rights treaties into domestic law. In particular, ratify the Protocol of 2014 to the ILO's Forced Labour Convention 1930, and the UN Convention on Protection of the Rights of All Migrant Workers and Members of their Families, and implement their provisions. Conduct human rights impact assessments of all climate-related polices.

3. For multilateral bodies

- Adopt and promote a holistic, rights-based approach to contemporary slavery
 and related forms of exploitation focused on reducing vulnerability to the impacts
 of climate change and environmental degradation. Promote knowledge-sharing
 and financing to assist states in meeting their positive legal obligations to prevent
 reasonably foreseeable harms.
- Based on the principle of Common but Differentiated Responsibility, provide significant untied funding to poorer and climate-vulnerable countries to extend social protections, facilitate safe migration and adequately support communities in building resilience to meet the impacts of climate change. Support the removal of barriers to climate policy and finance posed by inequitable mechanisms such as investorstate dispute settlement that allow investors to sue states but not vice versa.
- Provide direct financial support, legal assistance, technology and training to
 workers, indigenous peoples and vulnerable communities to empower them to
 protect their rights, defend and demarcate their territories, provide local monitoring
 and oversight, and prevent exploitation and abuse.
- Fulfil the obligations of the Paris Agreement by delivering ambitious emissions targets among wealthier nations and supporting adaptation, resilience, and loss and damage mechanisms in the most adversely affected countries.
- Prioritise community-led initiatives to protect ecosystems that support biodiversity and human subsistence, and advocate for placing forests and subsoil under the control of local communities and indigenous peoples.
- Focus funding, policy and assistance on activities that tackle the true drivers of deforestation, land grabbing, pollution and precarity. Industrialised agriculture, hydroelectric dams, roads and alluvial mining present greater threats to forests than small-scale logging and are key aspects of the vicious circle of vulnerability and human exploitation.
- Support a just recovery from Covid-19 and just transition measures to protect
 workers and communities; introduce and enforce mandatory human rights and
 environmental due diligence instruments with strong liability provisions at regional
 and global levels; accelerate progress towards the proposed Binding Treaty on
 Business and Human Rights at the UN level.
- Introduce international legal instruments to facilitate safe internal and international migration, and promote effective international co-operation to support climate migrants.

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